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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/735,294      | 12/12/2003  | Raymond C. Kurzweil  | 14202-002001        | 9946             |

26161 7590 12/23/2010  
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| EXAMINER |
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MOSSER, KATHLEEN MICHELE

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

3715

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|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

12/23/2010

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/735,294  
Filing Date: December 12, 2003  
Appellant(s): KURZWEIL, RAYMOND C.

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Denis G. Maloney  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 27 August 2010 appealing from the Office action mailed 08 January 2010.

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**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1-23

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office

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action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

|           |            |         |
|-----------|------------|---------|
| 6,786,863 | Abbasi     | 09-2004 |
| 6,695,770 | Choy et al | 02-2004 |
| 7,124,186 | Picconelli | 10-2006 |
| 5,111,290 | Gutierrez  | 05-1992 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 1-4, 7-10, 13-17, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbasi (USPN 6,786,863) in view of Choy et al. (USPN 6,695,770; hereinafter Choy), further in view of Piccionelli (US 7,124,186).**

Regarding claims 1, 9, and 15 Abbasi discloses a virtual encounter system and method comprising, a mannequin having life-like features, the mannequin further comprising: a simulated human body part 55; a camera 35a-b coupled to the body for

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sending video signals to a communications network 30; and a microphone 40a-b coupled to the/ body for sending audio signals over the communications network; a display to render the video signals received from the camera and a transducer to transduce the audio signals received from the microphone (See Col. 2, lines 54-67).

Abbasi discloses all of the claimed subject matter with the exception of explicitly disclosing the feature of providing a video display in the form of goggles. However, it is the examiner's position that providing a head mounted display is old and well known in a virtual reality environment. In addition, Choy teaches a virtual reality system wherein users are provided with their own headsets for displaying images and sound (See Choy, Col. 3, lines 1-6, lines 41-45; Fig 1, headset output) to provide images of a person with whom the user wishes to fantasize. In view of Choy, it would have been obvious to one of ordinary skill in the art to modify the display described in Abbasi, by providing a head mounted display/goggles in order to enhance the reality of a virtual environment by allowing a user to fantasize about a person displayed in the headset display.

The combination of Abbasi and Choy discloses all of the claimed subject matter with the exception of explicitly disclosing that the video and audio signals reflect the mannequin's surrounding views and sound in real-time. The examiner agrees with applicant that the audio and video signals described in Choy are retrieved from a database. However, Piccionelli teaches a method of providing live performances over a network, wherein the performance is a virtual sex service (see Col. 5, line 62 – Col. 6, line 2); wherein the performance is provided from a room with video conferencing or other means of transmission of visual, auditory, audiovisual, tactile, smell, and other sensory information. See Piccionelli, col. 5, lines 30-50. Therefore, It would have been obvious to one of ordinary skill in the art to modify the audio/video virtual sex

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environment described in Abbasi and Choy, by providing teleconferencing to provide surrounding views and thereby deliver a live performances in real-time in response to a user's request. See Piccionelli, Col. 2, lines 35-47.

Regarding claims 2 and 16, Abbasi discloses a system wherein the mannequin is at a first location with the camera being a first camera and the microphone being a first microphone and the display being the first display, the system further comprising: a second mannequin in the second different location, the second mannequin having a second microphone and a second camera; and a second display to receive the video signals from the first camera and a second earphone to receive the audio signals from the first microphone (See Col. 4, lines 37-47; Fig. 1).

Regarding claims 3 and 17, Abbasi discloses a system wherein the communications network comprises: a first communication gateway in the first location; and a second communication gateway in the second location, the second processor connected to the first processor via a network (See Col. 3, lines 6-8).

Regarding claim 4, Abbasi discloses a system wherein the communications network comprises an interface having one or more channels for: receiving the audio signals from the microphone; receiving the video signals from the camera; sending the audio signals to the display; and sending the audio signals to the transducer (See Col. 4, lines 37-47; Fig 1).

Regarding claims 7 and 13, Abbasi discloses a system wherein the display comprises a receiver to receive the video signals (See Col. 2, lines 54-67).

Regarding claims 8 and 14, Abbasi does not explicitly disclose the feature of providing a transmitter to wirelessly send the audio signals and the video signals to the communications network from the mannequin. However, Choy teaches a virtual reality

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system comprising a mannequin, wherein data is wirelessly transmitted from the mannequin to a communications network (See Col. 9, lines 5-15). Thus, in view of Choy, it would have been obvious to one of ordinary skill in the art to modify the transmission of data described in Abbasi, by providing a wireless transmission of data with the mannequin, in order to provide a more realistic untethered mannequin.

Regarding claim 10, Abbasi discloses a method further comprising: sending audio signals to the communications network from a second microphone coupled to a second mannequin having life-like features; sending video signals to the communications network from a second camera coupled to the second mannequin; rendering the video signals received from the communications network onto a monitor coupled to a second display; and transducing the audio signals received from the communications network using a second transducer of a second display (See Col. 2, lines 54-67; Col. 4, lines 37-47; Fig 1).

Regarding claims 21-23, Abbasi does not explicitly disclose the feature of modifying one or more characteristics of audio signals from a microphone and sending the modified audio signal over a communication network. Abbasi discloses the capability to receive audio information from a microphone attached to the first computing device, wherein the audio is then conveyed to a second computing device where it is routed to a speaker system or audio output unit. See Col. 2, lines 63-67. It is not explicitly disclosed that the audio signal from the microphone is modified. However, the examiner takes official notice that the feature of modifying audio signals that are captured via microphone is notoriously old and well known. For example, once an analog signal (voice) is captured by the microphone, it would be obvious to one of ordinary skill to modify the analog signal by digitizing and/or compressing the signal in

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order to store or transmit the data. The examiner notes that the appellant does not seasonably traverse the examiner's statement of official notice, and as such this examiners assertion of official notice is entered in as admitted prior art.

**Claims 5-6, 11-12, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbasi (USPN 6,786,863) in view of Choy et al. (USPN 6,695,770; hereinafter Choy), Piccionelli , and further in view of Gutierrez (USPN 5,111,290).**

The combination of Abbasi, Choy, and Piccionelli discloses all of the claimed subject matter with the exception of explicitly disclosing the feature of (as per claims 5, 11, 18, 20) positioning the camera in the eye socket of the body; (as per claims 6, 12, 19, and 20) positioning the microphone in an ear canal of the simulated body. However, Gutierrez teaches a virtual mannequin comprising a video camera concealed in the eye socket of the mannequin (Col. 1, lines 57-65) and further teaches that a microphone (112) should be concealed within the mannequin body (Figure 7). In view of Gutierrez, it would have been obvious to one of ordinary skill in the art to modify the placement of the mannequin camera and microphone described in the combination of Abbasi and Choy, by concealing them within the mannequin and thereby avoiding the unattractive appearance of the camera and microphone. Though Gutierrez fails explicitly show that the microphone is within an ear canal of the mannequin, it would have been an obvious matter of design choice as to the specific location of the microphone within the mannequin body. Such a modification is dependent upon the design considerations present at the time of development and market, based upon where and how audio data

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are desired to be retrieved. As such it would have been a mere matter of design choice to include the microphone within an ear canal of the mannequin.

**(10) Response to Argument**

Claims 1, 9, and 15; of which claim 1 is taken as exemplary

Appellant asserts that the combination of Abbasi and Choy fails to teach the claimed configuration of the goggles. Appellant further asserts that it would not have been obvious to combine the goggles of Choy within the invention of Abbasi. To support this assertion the appellant states that one of ordinary skill in the art would not be able to use the invention of Abbasi as intended with the incorporation of the Choy goggles, as the user would have to remove the goggles to locate the surrogate and interact with the surrogate and then place the goggles back on to continue a video presentation. Appellant further asserts that the combination fails because the Abbasi system intends for a user to be capable of interacting with a graphical user interface and a keyboard.

In response to the appellant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this instance both Abbasi and Choy et al are directed to inventions in which a user is allowed to view a video of another individual while interacting with a surrogate or mannequin. In making their assertions that in order to interact with the surrogate of Abbasi while viewing the video presentation the user would have to remove the goggles disclosed by Choy et al, the appellant has provided

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no clear line of reasoning as to why this would be required. The user of Abbasi could easily locate the surrogate prior to starting a video and placing the goggles on. This argument implies that in order to interact with the surrogate the user must be capable of visually seeing the mannequin. This argument has no factual basis. If the spirit of mankind has taught us nothing it is our ability to overcome adversity that defines us as mankind, specifically a blind person's ability to interact with their world in absence of any sight. Being capable of directly seeing an object in order to interact with that object, particularly in a physical manner as intended by both Abbasi and Choy et al, is not essential. No where in Abbasi does it state that the user must be in visual contact with the surrogate in order for proper operation, it simply requires that the user have physical access to the surrogate. As previously stated the user of Abbasi could use the disclosed GUI of Abbasi to select and start a program, locate the surrogate, and then place on the goggles of Choy et al, which would display the video of the other user. In fact, the invention of Choy et al is intended to function in a substantially similar manner. In the invention of Choy et al, the user interface for making selection is displayed within the goggles themselves and the user's movements with a data glove are used to make selections, see col. 2: 64-67. Thus Choy et al suggests that, in the combination with Abbasi, it would have been obvious to one of ordinary skill in the art to display the entire GUI of Abbasi, including menu selection, on the display of the goggles. In contrast to the appellant's assertions the inclusions of the goggles of Choy et al within the system of Abbasi would simply amount to the substitution of a known element (the computer monitor of Abbasi) with another known element (the goggles of Choy et al) to yield a predictable result of providing a user interface within the goggles.

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Appellant further asserts that Piccionelli fails to correct these deficiencies and further that the combination of Piccionelli with Abbasi and Choy et al would cause the systems to not work as intended. To support this the appellant points to Choy et al's teaching of creating a virtual word and a virtual avatar. Here the appellant is arguing the references individually, and fails to consider the teachings of the prior art as a whole. Though Choy et al does teach embodiments where a user is capable of interacting with depictions of movie stars, or other fictional characters, Choy et al also teaches that the invention could be used to interact with real people col. 2: 6-7. The invention does not exclude the use of real video. Further Abbasi teaches that the video transmission is of the real world users. When taken as a whole Abbasi, Choy et al, and Picconelli teach that the interaction with other, real world individuals over a networked environment. As such, the modification of Abbasi to include the video and audio data of Picconelli would have been obvious to one of ordinary skill in the art for the reasons set forth in the rejection above.

Claims 2-3, 10, 14, and 16-17, claim 2 as a representative claim

The appellant relies upon the remarks above concerning claim 1 to support non-obviousness of the claims. The examiner reiterates the above arguments for obviousness.

Claims 21-23

Appellant asserts that the examiner's taking of official notice fails to address the features of the claims. Specifically the feature of "the transduced electrical signals representing the modified second audio signals at the set of goggles represent at least partially modified sound of the surrounding of the location different from the location of the mannequin". The examiner notes that the appellant does not challenge the

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examiner's statement of official notice, and as such admits that such is old and well-known. The appellant instead asserts that transformation of an analog signal into a digital signal, which may then be compressed for purposes of transmission or storage is not analogous to the claimed modification of such a signal. Appellant makes the general allegation that the mere acts of digitizing and/or compressing a signal is not analogous to modifying one or more characteristics of the audio signal. In contrast the claims calls for the modification of one or more characteristics of the audio signal so that the transduced electrical signals representing the modified audio signal at the set of goggles represents at least partially modified sound. When a signal is picked up at a first microphone it is an analog signal which must then be modified or converted into a digital signal. Digital signals are discrete points, represented in most computer systems by a series of 1's and 0's. This transformation, which commonly occurs when audio data is to be transmitted over a network, is a change in the characteristics of the original audio signal. Further, the processing of compressing an audio signal represents the modification of the size or memory volume required to store and transmit the signal. The size of the file required to store the signal is yet another characteristic of the audio signal, which is again modified through the process of compressing the file. Once the file is transmitted it will require being decompressed (returned to its original size) and conversion back to an analog signal for output through an audio speaker. Thus the signal transduced at the second is a representation of the modified (previously converted and compressed) signal.

Claims 4, 5, 7, 8, 11, 13 and 18

The appellant makes no addition arguments concerning the independent patentability of these claims.

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Claims 6, 12, 19 and 20, represented by claim 6

The appellant asserts that the prior art of Guitierrez fails to teach that the microphone is placed in an ear canal of the mannequin. Guitierrez though failing to explicitly show that the microphone is within an ear canal of the mannequin, it would have been an obvious matter of design choice as to the specific location of the microphone within the mannequin body. Such a modification is dependent upon the design considerations present at the time of development and market, based upon where and how audio data are desired to be retrieved. As such it would have been a mere matter of design choice to include the microphone within an ear canal of the mannequin.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Kathleen Mosser/

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